

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A recombinant human C1 inhibitor comprising a modified O-linked carbohydrate and having an extended plasma circulatory half-life compared to an unmodified C1 inhibitor, wherein the modified O-linked carbohydrate comprises a sialylated terminal galactose residue of Gal( $\beta$ 1-3)GalNAc.

2-3. (Canceled)

4. (Previously Presented) The recombinant human C1 inhibitor according to claim 1, wherein the plasma circulatory half-life of the modified inhibitor has increased to at least 1.5, 2, 3 or 4 times the value of the half-life of the unmodified inhibitor.

5-6. (Canceled)

7. (Currently Amended) The method according to claim 25, wherein the enzyme preparation further comprises sialyltransferase ST3Gal III.

8. (Previously Presented) The method according to claim 25, wherein the enzyme preparation comprises sialyltransferase ST3Gal I.

9. (Previously Presented) The method according to claim 25, wherein the enzyme preparation comprises sialyltransferases ST3Gal III and ST3Gal I.

10-12. (Canceled)

13. (Previously Presented) A pharmaceutical composition comprising a human recombinant C1 inhibitor according to claim 1.

14-15. (Canceled)

16. (Currently Amended) A method for extending the blood circulatory half-life of a glycoprotein or of a glycoprotein comprising compound, wherein the method comprises removing one or more non-sialylated O-linked carbohydrates comprising Gal( $\beta$ 1-3)GalNAc a ~~terminal galactose residue~~ from the glycoprotein by *in vitro* incubation with an enzyme preparation comprising one or more enzymes capable of removing the one or more non-sialylated O-linked carbohydrates, wherein the blood circulatory half-life of the glycoprotein or glycoprotein comprising compound is extended compared to an unmodified glycoprotein or glycoprotein comprising compound.

17-18. (Canceled)

19. (Currently Amended) The method according to claim 16, wherein the enzyme preparation comprises ~~angalactosidase~~ or endo-acetylgalactosaminidase.

20. (Previously Presented) The method according to claim 16, wherein the enzyme preparation comprises one or more recombinantly produced enzymes.

21. (Canceled)

22. (Previously Presented) The method according to claim 16, wherein the glycoprotein is a C1 inhibitor.

23. (Previously Presented) The method of claim 22, wherein the C1 inhibitor is recombinant human C1 inhibitor.

24. (Previously Presented) The method of claim 23, wherein the enzyme preparation comprises Endo- $\alpha$ -N-Acetylgalactosaminidase.

25. (Currently Amended) A method for extending the plasma circulatory half-life of a recombinant human C1 inhibitor, the method comprising ~~sialylating~~ ~~modifying~~ an O-linked Gal( $\beta$ 1-3)GalNAc carbohydrate of the C1 inhibitor by *in vitro* incubation of the C1 inhibitor with an enzyme preparation comprising at least one sialyltransferase capable of

sialylating a terminal galactose residue of Gal( $\beta$ 1-3)GalNAc, wherein the plasma circulatory half-life of the C1 inhibitor is extended compared to an unmodified inhibitor.

26. (Previously Presented) The method of claim 25, wherein the plasma circulatory half-life of the modified C1 inhibitor has increased to at least 1.5, 2, 3 or 4 times the value of the half-life of the unmodified inhibitor.

27. (Canceled)

28. (New) The method of claim 8, wherein the enzyme preparation comprises cytidine-5'-monophospho-N-acetylneuraminic acid (CMP-sialic acid).

29. (New) The method of claim 9, wherein the enzyme preparation comprises cytidine-5'-monophospho-N-acetylneuraminic acid (CMP-sialic acid).

30. (New) The method of claim 25, wherein the enzyme preparation comprises at least one sialyltransferase capable of sialylating a terminal galactose residue of Gal( $\beta$ 1-4)GlcNAc.

31. (New) The method of claim 30, wherein the enzyme preparation comprises two or more sialyltransferases.